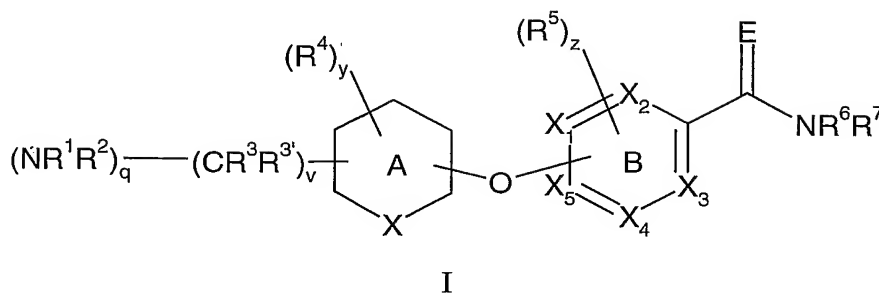


We claim:

1. A compound of formula (I)



wherein

each of  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ , and  $X_5$  is C, CH, or N; provided that ring B has no more than 2 nitrogen atoms;

X is NH or  $CH_2$ , so that ring A is cyclohexyl, cyclohexenyl, or piperidinyl;

E is NH or O;

v is 0, 1, 2, or 3;

q is 0 or 1, provided that when the A-ring is cyclohexyl or cyclohexenyl q is 1 and provided that v and q are not simultaneously 0;

$R^1$  and  $R^2$  are independently selected from hydrogen,  $C_1$ - $C_8$  alkyl,  $C_2$ - $C_8$  alkenyl,  $C_2$ - $C_8$  alkynyl, aryl,  $C_3$ - $C_8$  cycloalkyl,  $C_1$ - $C_{10}$  alkylaryl, heterocyclyl,  $C_1$ - $C_{10}$  alkylheterocyclic, - $C_1$ - $C_8$  alkylC(O) $C_1$ - $C_8$  alkyl,  $-(CH_2)_n(CO) C_3$ - $C_8$  cycloalkyl-,  $-C_2$ - $C_8$  alkylCH(OH)aryl, -,  $-CO(O)C_1$ - $C_8$ alkyl,  $-SO_2C_1$ - $C_8$ alkyl,  $-SO_2C_1$ - $C_{10}$  alkylaryl,  $-SO_2C_1$ - $C_8$  alkylheterocyclic, - $C_1$ - $C_8$  alkylcycloalkyl,  $-(CH_2)_nC(O)OR^8$ ,  $-(CH_2)_nC(O)R^8$ ,  $-(CH_2)_mC(O)NR^8R^8$ , and  $-(CH_2)_mNSO_2R^8$ ; wherein each of the alkyl, alkenyl, cycloalkyl, heterocyclic, and aryl groups are optionally substituted with one to five groups independently selected from halo,  $C_1$ - $C_8$  haloalkyl,  $C_1$ - $C_8$  thioalkyl,  $C_1$ - $C_8$  alkyl,  $C_2$ - $C_8$  alkenyl, aryl,  $-C_1$ - $C_8$  alkylaryl,  $-C(O)C_1$ - $C_8$  alkyl,  $-SO_2C_1$ - $C_8$  alkyl,  $-SO_2C_1$ - $C_8$  alkylaryl,  $-C_1$ - $C_8$  alkylcycloalkyl; and wherein  $R^1$  and  $R^2$  may optionally combine with each other to form a 4, 5, 6, or 7-membered nitrogen-containing heterocycle which nitrogen-containing heterocycle may further have substituents selected from the group consisting of amino,  $C_1$ - $C_8$  alkyl,  $C_2$ - $C_8$  alkenyl,  $C_2$ - $C_8$  alkynyl, aryl,  $C_1$ - $C_8$  alkylaryl,  $-C(O)C_1$ - $C_8$  alkyl,  $-CO(O)C_1$ - $C_8$  alkyl, halo, oxo,  $C_1$ - $C_8$  haloalkyl;

$R^3$  and  $R^{3'}$  are each independently selected from hydrogen,  $C_1$ - $C_8$  alkyl,  $C_2$ - $C_8$  alkenyl,  $C_2$ - $C_8$  alkynyl, aryl,  $-C_1$ - $C_8$  alkylcycloalkyl, or  $-C_1$ - $C_8$  alkylaryl;  $C_1$ - $C_8$  alkylheterocyclic; or  $R^3$  and  $R^{3'}$  combine to form a  $C_3$ - $C_8$  cycloalkyl,  $C_4$ - $C_8$  cycloalkenyl, or  $C_5$ - $C_{10}$  heterocyclic;

$R^4$  and  $R^5$  are each independently selected from hydrogen,  $C_1$ - $C_8$  alkyl,  $C_2$ - $C_8$  alkenyl,  $C_2$ - $C_8$  alkynyl,  $-C_1$ - $C_8$  alkoxyalkyl,  $C_1$ - $C_8$  thioalkyl, halo,  $C_1$ - $C_8$  haloalkyl,  $-C_1$ - $C_8$  alkoxyhaloalkyl, aryl,  $-C_1$ - $C_8$  alkylaryl,  $-C(O)C_1$ - $C_8$  alkyl, or  $-C(O)OC_1$ - $C_8$  alkyl,  $-C_1$ - $C_8$  alkylamino,  $-C_1$ - $C_8$  alkylcycloalkyl,  $-(CH_2)_mC(O)C_1$ - $C_8$  alkyl, and  $(CH_2)_nNR^8R^8$ , wherein each  $R^4$  or  $R^5$  is attached to its respective ring only at carbon atoms, and wherein y is 0, 1, 2, or 3; and wherein z is 0, 1, 2, or 3;

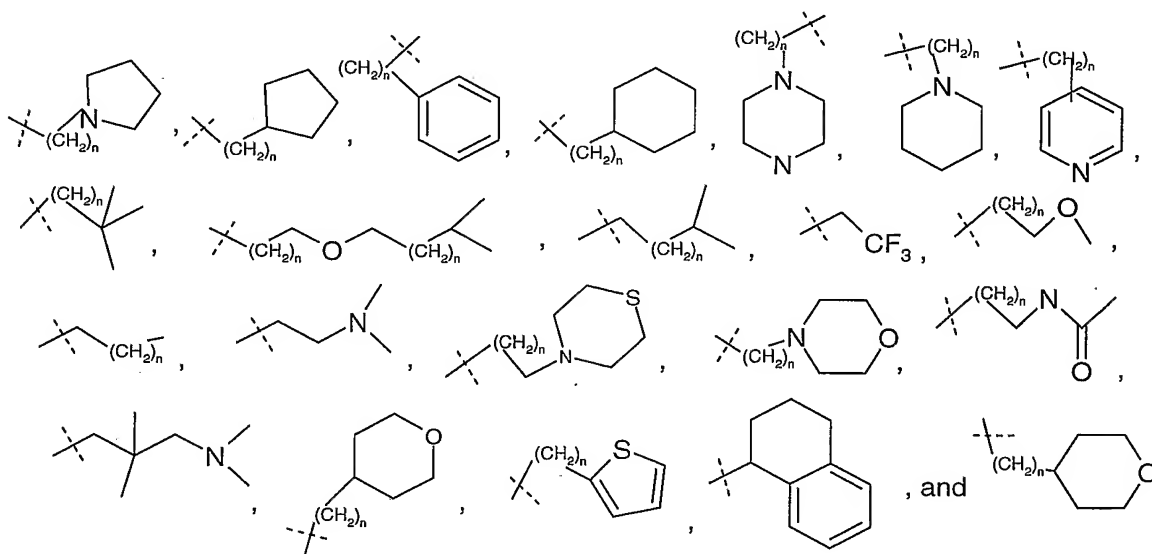
$R^6$  and  $R^7$  are each independently selected from hydrogen,  $C_1$ - $C_8$  alkyl,  $C_2$ - $C_8$  alkenyl,  $C_2$ - $C_8$  alkynyl,  $-C(O)C_1$ - $C_8$  alkyl, hydroxy,  $C_1$ - $C_8$  alkoxy,  $-SO_2C_1$ - $C_8$  alkyl,  $SO_2C_1$ - $C_8$  alkylaryl,  $-SO_2C_1$ - $C_8$  alkylheterocyclic, aryl,  $-C_1$ - $C_8$  alkylaryl,  $C_3$ - $C_7$  cycloalkyl,  $-C_1$ - $C_6$  alkylcycloalkyl,  $-(CH_2)_nC(O)R^8$ ,  $-(CH_2)_mC(O)NR^8R^8$ , and  $-(CH_2)_mNSO_2R^8$ ; wherein each of the alkyl, alkenyl, and aryl groups are optionally substituted with one to five groups independently selected from  $C_1$ - $C_8$  alkyl,  $C_2$ - $C_8$  alkenyl, aryl, and  $C_1$ - $C_8$  alkylaryl; and wherein  $R^6$  and  $R^7$  may independently combine with each other to form a 4, 5, 6, or 7-membered nitrogen-containing heterocycle which nitrogen-containing heterocycle may optionally have substituents selected from the group consisting of oxo,  $C_1$ - $C_8$  alkyl,  $C_2$ - $C_8$  alkenyl,  $C_2$ - $C_8$  alkynyl, aryl,  $-C_1$ - $C_8$  alkylaryl,  $-C(O)C_1$ - $C_8$  alkyl,  $-CO(O)C_1$ - $C_8$  alkyl, hydroxy,  $C_1$ - $C_8$  alkoxy,  $-C_1$ - $C_8$  alkylamine, amino, halo, and haloalkyl;

$R^8$  is hydrogen,  $C_1$ - $C_8$  alkyl,  $C_2$ - $C_8$  alkenyl,  $C_1$ - $C_8$  alkylaryl,  $-C(O)C_1$ - $C_8$  alkyl, or  $-C(O)OC_1$ - $C_8$  alkyl; and wherein n is 0, 1, 2, 3 or 4 and m is 1, 2, or 3;

or a pharmaceutically acceptable salt, solvate, enantiomer, racemate, diastereomer or mixture of diastereomers thereof.

2. The compound according to claim 1 wherein the A-ring is cyclohexyl.
3. A compound according to Claim 1 wherein the B-ring is selected from the group consisting of phenyl, pyridine, pyrimidine, pyrazine, and pyridazine.
4. A compound according to Claim 1 wherein the A-ring is piperidinyl.

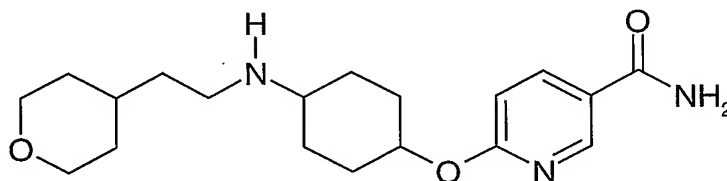
5. A compound according to Claim 1 wherein E is an oxygen atom.
6. A compound according to Claim 1 wherein y is 0, 1, or 2, and R<sup>4</sup> is independently selected from the group consisting of hydrogen, fluoro, chloro, bromo, methoxy, ethoxy, methyl, ethyl, isopropyl, trifluoromethyl, trifluoromethoxy, phenyl, and benzyl.
7. A compound according to Claim 1 wherein z is 0, 1, or 2, and R<sup>5</sup> is independently selected from the group consisting of hydrogen, fluoro, chloro, bromo, methoxy, ethoxy, methyl, ethyl, isopropyl, trifluoromethyl, trifluoromethoxy, phenyl, and benzyl.
8. A compound according to Claim 1 wherein R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of hydrogen, methyl, ethyl, propyl, isopropyl, phenyl,



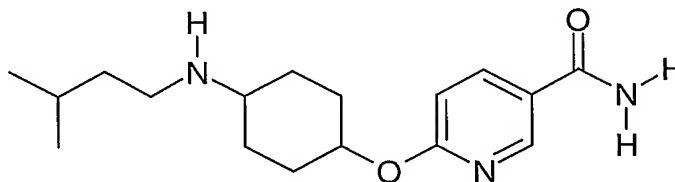
and wherein n is 1, 2, or 3.

9. The compound according to Claim 1 wherein  $R^6$  and  $R^7$  are each independently selected from the group consisting of hydrogen, methyl, ethyl, propyl, isopropyl, phenyl:
10. A compound according to of Claim 1 wherein E is an oxygen atom, and  $R^6$  and  $R^7$  are both hydrogen atoms.
11. A compound according to Claim 1 wherein v is 1 or 2.
12. A compound according to Claim 1 wherein v is 1, m is 1, n is 1, y is 0 or 1 and z is 0 or 1.
13. A compound selected from the group consisting of:

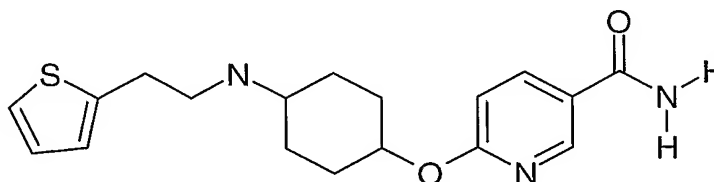
6-{4-[2-(tetrahydro-pyran-4-yl)-ethylamino]-cyclohexyloxy}-nicotinamide,



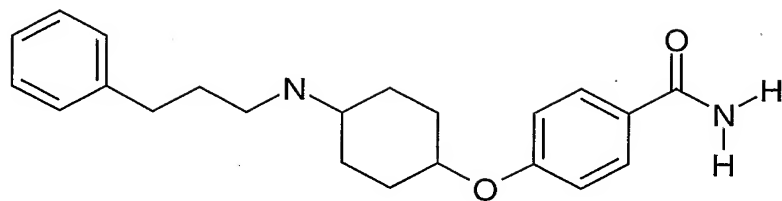
6-[4-(3-Methyl-butylamino)-cyclohexyloxy]-nicotinamide,



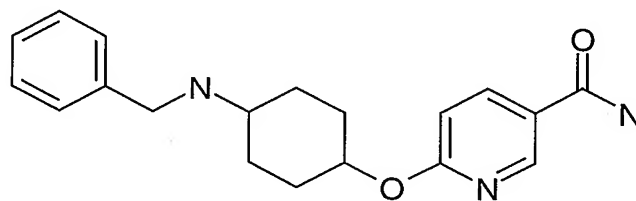
6-[4-(2-Thiophen-2-yl-ethylamino)-cyclohexyloxy]-nicotinamide



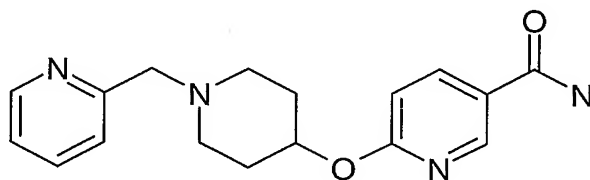
4-[4-(3-Phenyl-propylamino)-cyclohexyloxy]-benzamide



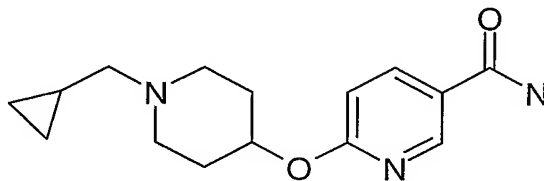
*Trans*-6-(4-Benzylamino-cyclohexyloxy)-nicotinamide,



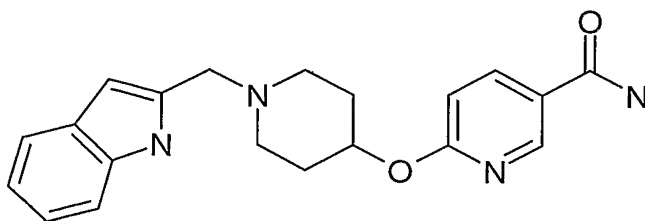
6-(1-Pyridin-2-ylmethyl-piperidin-4-yloxy)-nicotinamide



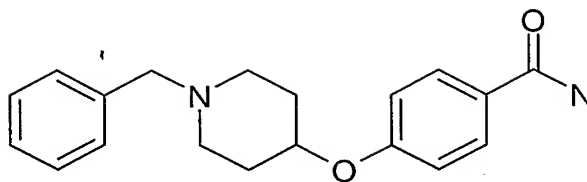
6-(1-Cyclopropylmethyl-piperidin-4-yloxy)-nicotinamide



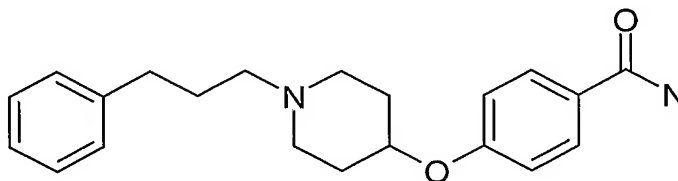
6-[1-(1H-Indol-2-ylmethyl)-piperidin-4-yloxy]-nicotinamide



4-(1-Benzyl-piperidin-4-yloxy)-benzamide,



4-[1-(3-Phenyl-propyl)-piperidin-4-yloxy]-benzamide



and a pharmaceutically acceptable salt, solvate, enantiomer, diastereomer or a diastereomeric mixture thereof.

14. A compound according to Claim 1 wherein the pharmaceutically acceptable salt is the hydrochloric acid salt, the methanesulfonic acid salt, hydrobromide salt, the bisulfate salt or tartaric acid salt.

15. A pharmaceutical composition comprising a therapeutically effective amount of a compound according to Claim 1 in association with a carrier, diluent and/or excipient.

16. A method for blocking a mu, kappa, delta or receptor combination (heterodimer) thereof in mammals comprising administering to a mammal requiring blocking of a mu, kappa, delta or receptor combination (heterodimer) thereof, a receptor blocking dose of a compound according to Claim 1, or a pharmaceutically acceptable salt, enantiomer, racemate, mixture of diastereomers, or solvate thereof.

17. A method of treating and/or preventing diseases related to obesity including irritable bowel syndrome, nausea, vomiting, obesity-related depression, obesity-related anxiety, smoking and alcohol addiction, sexual dysfunction, substance abuse, drug overdose, addictive behavior disorders, compulsive behaviors metabolic

diseases and symptoms thereof, and stroke, comprising administering a therapeutically effective amount of a compound of formula I.

18. A method of treating and/or preventing obesity and Related Diseases comprising administering a therapeutically effective amount of a compound of formula I to a patient in need thereof.

19. A method of suppressing appetite in a patient in need thereof, comprising administering a therapeutically effective amount of a compound of formula I.

20. A method of effecting weight loss in an obese patient comprising administering an effective amount of a compound of formula I or a pharmaceutically acceptable salt, solvate, racemate or enantiomer thereof.

21. A pharmaceutical composition for the treatment and/or amelioration of the symptoms associated with obesity and Related Diseases, containing as an active ingredient a compound of formula I according to Claim 1.